CLAIMS

1 A nozzle guide vane or turbine rotor blade for a gas turbine engine; the said vane or blade comprising an aerofoil having a pressure wall and a suction wall and at least one aerofoil internal cavity between the pressure and suction walls for conveying cooling air through the aerofoil, and at least one aerofoil platform adjacent and generally perpendicular to the aerofoil, the platform having at least one internal cavity with a pressure wall and a suction wall on respective sides of the aerofoil on one side of the platform cavity, the platform cavity being divided into at least two chambers including a first chamber for receiving cooling air for cooling the said platform pressure wall and a second chamber for receiving cooling air for cooling the said platform suction wall, wherein the said first chamber is in flow communication with the said aerofoil cavity for discharge of at least part of the cooling air entering the first chamber to the said aerofoil cavity.

2 A nozzle guide vane or turbine rotor blade as claimed in Claim 1 wherein a plurality of impingement cooling holes are provided in a wall on an opposite side of the platform cavity to the platform pressure and suction walls for cooling the said platform pressure and suction walls by the impingement of cooling air admitted, in use, into the said cavity through the impingement cooling holes from a common source, including a first set of impingement cooling holes for conveying cooling air into the said first chamber and a second set of impingement cooling holes for conveying cooling air into the said second chamber.

3 A nozzle guide vane or turbine rotor blade as claimed in Claim 2 wherein the first and second sets of impingement cooling holes are sized and spaced such that, in use, cooling air admitted to the first chamber has a higher operational pressure than cooling air admitted to the second chamber.

4 A nozzle guide vane or turbine rotor blade as claimed in Claim 2 or Claim 3 wherein the first and second sets of impingement cooling holes are sized and spaced such that, in use, the flow of cooling air through the first holes into the first chamber is greater than the flow of cooling air through the second holes into the second chamber.

5 A nozzle guide vane or turbine rotor blade as claimed in any preceding claim wherein the second chamber comprises a plurality of cooling air exit apertures at a downstream, or trailing edge, end of the said platform.

6 A nozzle guide vane or turbine rotor blade as claimed in Claim 5 wherein the said exit apertures comprise a plurality of cooling air exhaust slots.

7 A nozzle guide vane or turbine rotor blade as claimed in any preceding claim wherein the said platform pressure wall is provided with a plurality of film cooling holes for conveying cooling air from the first chamber to the external surface of the platform pressure wall to provide a film of cooling air over the said external surface in use.

8 A nozzle guide vane or turbine rotor blade as claimed in any preceding claim wherein the said platform suction wall is provided with a plurality of film cooling holes for conveying cooling air from the second chamber to the external surface of the platform suction wall to provide a film of cooling air over the said external surface in use.

9 A nozzle guide vane or turbine rotor blade as claimed in any preceding claim comprising first and second platforms at opposite spanwise ends of the aerofoil for forming radially inner and outer shrouds in an array of circumferentially spaced nozzle guide vane or turbine rotor blades in a gas turbine engine.

10 A nozzle guide vane or turbine rotor blade as claimed in any preceding claim further comprising a plurality of projections in the said first and/or second

chambers for increasing the surface cooling area of the said chamber(s).

11 A nozzle guide vane or turbine rotor blade substantially as hereinbefore described and/or with reference to the accompanying drawings.